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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,345

09/25/2003

Valerie Walker

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CANADA

EXAMINER

SCHATZ, CHRISTOPHER T

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

11/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/669,345	Applicant(s) WALKER ET AL.	
	Examiner CHRISTOPHER SCHATZ	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-7 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (US 5865934) for the reasons set forth in section 6 of the office action dated April 15, 2008. As to the amended limitations in claim 11, the reference meets said limitations for the reasons presented in the discussion of claim 1 in section 6 of the office action dated April 15, 2008.

Response to Arguments

3. Applicant's arguments filed September 15, 2008 have been fully considered but they are not persuasive

The applicant argues that layer 39 is not a work surface. The examiner asserts that the top surface of layer 39 reads on the limitation "work surface" regardless of the material said layer is made from. Applicant's claims as currently written do not require the surface to be made from any specific material. Additionally, the applicant never explains why the surface of layer 39 cannot support the first material.

The applicant argues that the adhesive anchors 34 of Yamamoto penetrate through the synthetic resin but do not anchor an adhesive. The examiner asserts that

Art Unit: 1791

applicant's claims, as currently written, do not impart any functional, structural or physical properties to the claimed adhesive anchors that would distinguish said claimed adhesive anchors from the adhesive anchors 34 of Yamamoto. Additionally, the applicant should note that Yamamoto discloses that the anchors 34 are made from an adhesive material such as solder powder, or a binder component (column 4, lines 49-63).

The applicant then argues that Yamamoto's bumps do not add physical or chemical bonding sites to an adhesion zone. The examiner respectfully disagrees. When the conductive bumps are applied to the material, the outer surfaces of the bumps read on the term "physical bonding sites". Additionally, because the bumps are made of a binding material as discussed above, they also add chemical bonding sites to an adhesion zone.

The applicant argues that nothing in Yamamoto suggests that the bonding adhesive bonds to the adhesive anchors. The applicant's attention is respectfully directed to column 7, lines 43-46, where the reference explicitly recites that the bonding adhesive is melted and cured. Additionally, the applicant is referred to column 4, lines 49-63 (disclosure of the binding material for the anchors) and column 6, lines 32-58, (discussion of the binding material for the bonding adhesive). The reference discloses that the adhesive anchors and the bonding adhesive are made of resins that are known to bond to each other when melted and/or cured. The applicant further argues that "There is no teaching of the function of improving the adhesion to a first material (for example layer 33) by providing *adhesive anchors* to which the bonding adhesive bonds

Art Unit: 1791

adheres more strongly than to the first material itself". This argument is not commensurate with the scope of the applicant's claims. The claims as currently written only require that the anchoring adhesive has a relatively higher degree of adhesion to the to the first or second material than to the bonding adhesive. The claim says nothing about improving adhesion to a first material and does not require the bonding adhesive to adhere more strongly to the anchors than to the first material.

The applicant further argues that the anchors disclosed by Yamamoto do not serve the same purpose as the adhesive anchors claimed by the applicant. This argument is not germane to the rejection – the applicant's claims do not contain limitations that functionally distinguish the claimed anchoring adhesive from the anchoring adhesive disclosed by Yamamoto. Applicant's arguments with respect to the conical shape of Yamamoto's adhesive anchors are not commensurate with the scope of the applicant's claim for the reasons discussed above.

The applicant argues that Yamamoto teaches away from the claimed invention because the synthetic resin sheet is laminated on the support. The step of laminating the synthetic resin sheet (bonding adhesive) on the support (first material) on which the adhesive anchors are formed does not exclude the sheet from being adhered to the conductive bumps. In fact, after the synthetic sheet is laminated to the support, the sheet is then heated and cured and bonded to the conductive bumps.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER SCHATZ whose telephone number is 571-272-6038. The examiner can normally be reached on Monday through Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER SCHATZ/
Examiner, Art Unit 1791

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1791